Diblog of 3d wents

We claim:

1. A luminescent polymer having a repeating unit represented by formula (1):

$$\begin{array}{c|c}
 & O \\
 & N \\
 & M \\$$

wherein Ar is a group represented by one of formulas (2)-(5); B is $-Y-Ar^1$, -Y-R, or a hydrogen atom, wherein Y is a single bond or -O-, Ar^1 is a group represented by formula (6), and R is an alkyl group or an alkenyl group; and n denotes an integer from 1 to 4, wherein Bs may be the same or different from each other when n is 2, 3, or 4; at least one of the Bs in formula (1) is $-Y-Ar^1$ or -Y-R when B or Bs in formula (2), (3), (4) or (5) are a hydrogen atom or hydrogen atoms; and at least one of the Bs in the group represented by any one of formulas (2)-(5) must be $-Y-Ar^1$ or -Y-R when B or Bs bonded to the benzene ring in formula (1) are a hydrogen atom or hydrogen atoms,

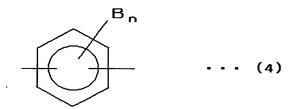
wherein the group represented by formula (2) is:

wherein B in formula (2) is the same as that defined above; n denotes an integer of 1 to 4, and when n is 2, 3, or 4, Bs

may be the same or different from each other; the group represented by the formula (3) is:

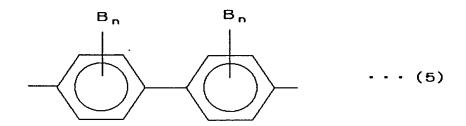
wherein each of the Bs in formula (3) is the same as that defined above, n denotes an integer of 1 to 3, and Bs may be the same or different from each other;

the group represented by the formula (4) is:



wherein B in formula (4) means the same as that defined above, n denotes an integer of 1 to 4, and when n is 2, 3, or 4, Bs may be the same or different from each other;

the group represented by the formula (5) is:



wherein each of the Bs is the same as that defined above, n denotes an integer of 1 to 4, and Bs may be the same or different from each other; and

the group represented by the formula (6) is:

$$-CH_2$$
 (6)

wherein ${\bf R}^{\bf 1}$ is a hydrogen atom or an alkyl group, and n denotes an integer of 1 to 5.

2. A luminescent polymer having a repeating unit represented by formula (7):

wherein each of R^2 and R^3 is an alkyl group; n denotes an integer of 1-5; when n is 2, 3, 4 or 5, R^2 s may be the same or different from each other and R^3 s may be the same or different from each other; and R^2 (s) and R^3 (s) may be the same or different from each other.

3. A luminescent polymer having a repeating unit represented by formula (8):

$$\begin{array}{c|c}
B \\
O \\
N \\
N \\
N
\end{array}$$

$$\begin{array}{c}
N \\
N \\
N
\end{array}$$

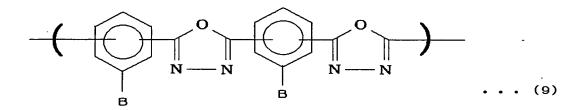
$$\begin{array}{c}
N \\
N \\
N
\end{array}$$

$$\begin{array}{c}
N \\
N \\
N
\end{array}$$

wherein each of the Bs in formula (8) means the same as that

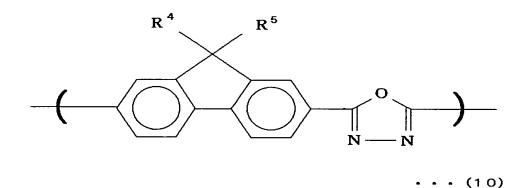
defined in claim 1; and at least one of the three Bs is $-Y-Ar^1$ or -Y-R, wherein Y, Ar^1 and R are the same as those defined in claim 1.

4. A luminescent polymer having a repeating unit represented by formula (9):



wherein each B in formula (9) is the same as that defined in claim 1, and at least one of the two Bs is $-Y-Ar^1$ or -Y-R.

5. A luminescent polymer having a repeating unit represented by formula (10):



wherein each of R^4 and R^5 is an alkyl group, and R^4 and R^5 may be the same or different from each other.

6. A luminescent element comprising a pair of electrodes and a film of the luminescent polymer according to any one of

claims 1-5 between the electrodes.